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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,912	06/23/2003	Richard L. Antrim	006401.00399	7581

22908 7590 11/18/2004

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EXAMINER	
KHARE, DEVESH	

ART UNIT	PAPER NUMBER
1623	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/601,912	ANTRIM ET AL.	
	Examiner	Art Unit	
	Devesh Khare	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *06/25/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant's amendment and response filed on 08/17/2004 are acknowledged. Claim 1 has been amended. New claim 34 has been added. Applicant's election of Group I (claims 1-10) without traverse is acknowledged. Claims 11-33 have been cancelled. The objection of claim 2, has been withdrawn in response to applicant's amendment. The rejection of claims 1 and 3-10, under 35 U.S.C. 112, second paragraph, has been withdrawn in response to applicant's remarks.

The nonstatutory double patenting rejection issued in the office action dated 05/17/2004 has been withdrawn because during the course of reconsideration of the application, a prior art reference not previously disclosed by the applicants or the examiner came to light (see rejection below).

The examiner withdraws the 35 U.S.C. 103(a) rejections, as being unpatentable over U.S. Patent 6,720,418 (Antrim et al.) in view of Degelmann et al. (U.S. Patent 6,103,894), because during the course of reconsideration of the application, a prior art reference not previously disclosed by the applicants or the examiner came to light (see rejection below).

Claims 1-10 and 34 are currently pending in this application.

35 U.S.C. 112, second paragraph rejection

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

Claims 1-10 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "some" in claim 1 (line 5) is a relative term, which renders the claim indefinite. The term "some" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims which depend from an indefinite claim which fail to obviate the indefiniteness of the claim from which they depend are also seen to be indefinite and are also rejected for the reasons set forth supra.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **1-10 and newly added claim 34** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,720,418('418) in view of Vianen et al. (EP 404 227)(Vianen).

The instant invention is directed to a saccharide-derivatized oligosaccharide composition, comprising extrusion reaction product of a saccharide (DP 1-4) and mixture of malto-oligosaccharide and mixture of malto-oligosaccharide derivative with the extrusion produced saccharide. Dependent claim limitations include the saccharide product consisting of dextrose in monohydrate form or a mixture of dextrose and hydrogenated starch hydrolyzate, maltose, maltotriose and maltotetraose; saccharide product comprising a mixture of dextrose and at least one other saccharide; degree of polymerization of the malto-oligosaccharide greater than 5; and hydrozylate is sorbitol. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '418 patent discloses a mixture of derivatized malto-oligosaccharides prepared by catalytic hydrogenation of a mixture of malto-oligosaccharide species and derivatization of the hydrogenated malto-oligosaccharide mixture (claims 1-10). The '418 patent also discloses the mixture of oligosaccharides from the starch hydrolyzates (col. 1, lines 16-27). The '418 patent discloses malto-oligosaccharides having a degree of polymerization (DP) greater than 5 (claim 1). The '418 patent also discloses that DP profile of the reduced derivatized malto-oligosaccharides are close to the starting mixture (col. 2, lines 32-39). The '418 patent differs from the applicant's invention that the composition of the '418 patent does not include derivatization of the hydrogenated malto-oligosaccharide mixture by a hydrogenated sugar such as sorbitol.

Vianen a process for the preparation of low-calorie polysaccharide derivative by reacting a saccharide with a food-grade polyol such as sorbitol (col. 1, lines 1-15).

Vianen discloses that the said saccharide can be glucose, maltose or maltotriose (col.2, lines 45-50). Vianen also discloses that the said low-calorie polysaccharide derivative can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products (col. 4, lines 20-25).

It would have been obvious to person having ordinary skill in the art at the time the invention was made, to modify the composition containing a mixture of malto-oligosaccharides because '418 had disclosed that such compositions had many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 35-38), in view of the recognition in the art, as evidenced by Vianen reference, that discloses that the saccharides such as glucose, maltose or maltotriose can be derivatized with a food-grade polyol such as sorbitol and can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products. The motivation is provided by the '418 patent, the prior art suggests that the mixture of malto-oligosaccharides and derivatized malto-oligosaccharides have many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 28-38).

The examiner notes the instant claims and the '418 claims do indeed substantially overlap and this obviousness-type double patenting rejection is necessary to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.

35 U.S.C. 103(a) rejection

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

Claims **1-10 and newly added claim 34** are rejected under 35 U.S.C. 103(a) as being obvious over claims 1-10 of U.S. Patent No. 6,720,418('418) (Antrim et al.) in view of Vianen et al. (EP 404 227)(Vianen).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29,

1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

The instant invention is directed to a saccharide-derivatized oligosaccharide composition, comprising extrusion reaction product of a saccharide (DP 1-4) and mixture of malto-oligosaccharide and mixture of malto-oligosaccharide derivative with the extrusion produced saccharide. Dependent claim limitations include the saccharide product consisting of dextrose in monohydrate form or a mixture of dextrose and hydrogenated starch hydrolyzate, maltose, maltotriose and maltotetraose; saccharide product comprising a mixture of dextrose and at least one other saccharide; degree of polymerization of the malto-oligosaccharide greater than 5; and hydrozylate is sorbitol. The '418 patent teaches a mixture of derivatized malto-oligosaccharides prepared by catalytic hydrogenation of a mixture of malto-oligosaccharide species and derivatization of the hydrogenated malto-oligosaccharide mixture (claims 1-10). The '418 patent also discloses the mixture of oligosaccharides from the starch hydrolyzates (col. 1, lines 16-27). The '418 patent discloses malto-oligosaccharides having a degree of polymerization (DP) greater than 5 (claim 1). The '418 patent also discloses that DP profile of the reduced derivatized malto-oligosaccharides are close to the starting mixture (col. 2, lines 32-39). The '418 patent differs from the applicant's invention that the composition of the '418 patent does not include derivatization of the hydrogenated malto-oligosaccharide mixture by a hydrogenated sugar such as sorbitol.

Vianen a process for the preparation of low-calorie polysaccharide derivative by reacting a saccharide with a food-grade polyol such as sorbitol (col. 1, lines 1-15). Vianen discloses that the said saccharide can be glucose, maltose or maltotriose (col.2, lines 45-50). Vianen also discloses that the said low-calorie polysaccharide derivative which can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products (col. 4, lines 20-25).

It would have been obvious to person having ordinary skill in the art at the time the invention was made, to modify the composition containing a mixture of malto-oligosaccharides because '418 had disclosed that such compositions had many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 35-38), in view of the recognition in the art, as evidenced by Vianen reference, that discloses that the saccharides such as glucose, maltose or maltotriose can be derivatized with a food-grade polyol such as sorbitol which can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products. The motivation is provided by the '418 patent, the prior art suggests that the mixture of malto-oligosaccharides and derivatized malto-oligosaccharides have many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 28-38).

Response to Arguments

Applicant's arguments traversing the rejection of claims 1-10 under 35 U.S.C 103(a) have been fully considered but they are not persuasive. These arguments also fail to obviate the rejection of newly added claim 34.

Applicant argues, "where is the teaching to substitute sorbitol for the etherified hydrogenated malto-oligosaccharide mixture disclosed in '418, or any other form of derivatization there disclosed?".

It would have been obvious to person having ordinary skill in the art at the time the invention was made, to modify the composition containing a mixture of malto-oligosaccharides because '418 had disclosed that such compositions had many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 35-38), in view of the recognition in the art, as evidenced by Vianen reference, that discloses that the saccharides such as glucose, maltose or maltotriose can be derivatized with a food-grade polyol such as sorbitol which can be used as a low-calorie bulking agent to diet foodstuffs to impart characteristics of high-calorie products (col. 1, lines 1-15 and col. 4, lines 20-25). The motivation is provided by the '418 patent, the prior art suggests that the mixture of malto-oligosaccharides and derivatized malto-oligosaccharides have many commercial uses such as encapsulants, acidulants, flocculants, adhesives, antiredeposition agents, and detergent builders (col.1, lines 28-38).

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Devesh Khare whose telephone number is (571) 272-0653. The examiner can normally be reached on Monday to Friday from 8:00 to 4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, Supervisory Patent Examiner, Art Unit 1623 can be reached at (571)272-0661. The official fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-4556 or 308-4242.
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Devesh Khare, Ph.D.,JD.
Art Unit 1623
November 12, 2004

JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600